

STIC-ILL

297292

From: Lukton, David
Sent: Tuesday, May 23, 2000 12:48 PM
To: STIC-ILL

David Lukton
308-3213
AU 1653
SN 09/450217

L9 ANSWER 1 OF 2 CABA COPYRIGHT 2000 CABI

AN 96:108914 CABA
DN 960403427

TI Glycomacropeptide from cheese whey protein concentrate enhances IgA
production by lipopolysaccharide-stimulated murine spleen cells

AU Yun, S. S.; Sugita-Konishi, Y.; Kumagai, S.; Yamauchi, K.

CS College of Agriculture and Veterinary Medicine, Nihon University,
Setagaya-ku, Tokyo 154, Japan.

SO Animal Science and Technology, (1996) Vol. 67, No. 5, pp. 458-462. 15 ref.
ISSN: 0021-5309

DT Journal
LA English

agl: 49. N62

N05/23

agl
5/25
100
COMPLETED
6
54

STIC-LL

From:
Sent:
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Tuesday, May 23, 2000 12:48 PM
STIC-ILL

David Lukton
308-3213
AU 1653
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L9 ANSWER 2 OF 2 CABA COPYRIGHT 2000 CABI

AN 94:110130 CABA

DN 940404658

TI Functional milk protein products

AU Mulvihill, D. M.; Andrews, A. T. [EDITOR]; Varley, J. [EDITOR]

CS Food Chemistry Department, University College, Cork, Irish Republic.

SO Biochemistry of milk products, (1994) pp. 94-113. Special Publication No.

150. 82 ref.

Publisher: Royal Society of Chemistry. Cambridge

Price: pounds sterling 39.50.

ISBN: 0-85186-702-2

agl: SF253. B56 (1994)

CY United Kingdom
DT Conference Article
LA English

008

*Checked out
NO 5/23*

*agl
5/25
100*
COMPLETED
*21
1.89*

=> file caba

=> e glycomacropeptide

E1	1	GLYCOLYZING/BI
E2	1	GLYCOMACRO/BI
E3	101	--> GLYCOMACROPEPTIDE/BI
E4	26	GLYCOMACROPEPTIDES/BI
E5	1	GLYCOMAURIN/BI
E6	1	GLYCOMAURROL/BI
E7	4	GLYCOMETABOLIC/BI
E8	1	GLYCOMETHACRYLATE/BI
E9	1	GLYCOMETHYL/BI
E10	1	GLYCOMIMESIS/BI
E11	1	GLYCOMONOMERS/BI
E12	1	GLYCOMUL/BI

=> s e3-e4

	101	GLYCOMACROPEPTIDE/BI
	26	GLYCOMACROPEPTIDES/BI
L1	116	(GLYCOMACROPEPTIDE/BI OR GLYCOMACROPEPTIDES/BI)

=> s glycomacro peptide#

	1	GLYCOMACRO
	23703	PEPTIDE#
L2	1	GLYCOMACRO PEPTIDE#
		(GLYCOMACRO(W)PEPTIDE#)

=> s caseinoglycomacro?

L3	2	CASEINOGLYCOMACRO?
----	---	--------------------

=> s caseinglycomacro?

L4	0	CASEINGLYCOMACRO?
----	---	-------------------

=> s l1-l3

L5	119	(L1 OR L2 OR L3)
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=> s whey

L6 18820 WHEY

=> s anion## or cation## or ion##

9445 ANION##

16871 CATION##

38920 ION##

L7 55513 ANION## OR CATION## OR ION##

=> s l6(15a)l7

L8 544 L6(15A)L7

=> s l8(L)l5

L9 2 L8(L)L5

=> d bib,ab,kwic 1-2

L9 ANSWER 1 OF 2 CABA COPYRIGHT 2000 CABI

AN 96:108914 CABA

DN 960403427

TI Glycomacropeptide from cheese whey protein concentrate enhances IgA production by lipopolysaccharide-stimulated murine spleen cells

AU Yun, S. S.; Sugita-Konishi, Y.; Kumagai, S.; Yamauchi, K.

CS College of Agriculture and Veterinary Medicine, Nihon University, Setagaya-ku, Tokyo 154, Japan.

SO Animal Science and Technology, (1996) Vol. 67, No. 5, pp. 458-462. 15 ref. ISSN: 0021-5309

DT Journal

LA English

AB The effect of kappa -casein ***glycomacropeptide*** (GMP) which was isolated from cheese ***whey*** protein concentrate (CWPC) using ***anion*** -exchange chromatography, on immunoglobulin (Igs) production in lipopolysaccharide (LPS)-stimulated splenocytes was investigated. The effect of GMP on Igs production was studied by determining the concentration of each class of Igs (IgM, IgG1 and IgA) in the supernatant of splenocytes cultured with LPS and various concentrations of GMP by sandwich-ELISA. GMP enhanced IgA production, but not the other Igs production, by LPS-stimulated splenocytes. The fluorescence-activated cell

sorter (FACS) analysis of the cultured splenocytes revealed that GMP increased the population of surface IgA-positive cells (sIgA+ cells). These results suggest that GMP enhances IgA production by LPS-stimulated splenocytes by increasing the population of sIgA+ cells.

AB The effect of kappa -casein ***glycomacropeptide*** (GMP) which was isolated from cheese ***whey*** protein concentrate (CWPC) using ***anion*** -exchange chromatography, on immunoglobulin (Igs) production in lipopolysaccharide (LPS)-stimulated splenocytes was investigated. The effect of GMP on Igs production was studied. . .

L9 ANSWER 2 OF 2 CABA COPYRIGHT 2000 CABI

AN 94:110130 CABA

DN 940404658

TI Functional milk protein products

AU Mulvihill, D. M.; Andrews, A. T. [EDITOR]; Varley, J. [EDITOR]

CS Food Chemistry Department, University College, Cork, Irish Republic.

SO Biochemistry of milk products, (1994) pp. 94-113. Special Publication No. 150. 82 ref.

Publisher: Royal Society of Chemistry. Cambridge

Price: pounds sterling39.50.

ISBN: 0-85186-702-2

CY United Kingdom

DT Conference Article

LA English

AB This subject is reviewed under the following headings: production of casein and caseinates (conventional methods for production of caseins, non-conventional methods for production of caseins, caseinate production, fractionation of casein, production of whey protein-enriched products, dried whole whey, dried demineralized ***whey***, dried demineralized, delactosed ***whey***, ***whey*** protein concentrate and ***whey*** protein isolate-ultrafiltration-diafiltration and ***ion*** -exchange adsorption, lactalbumin production, and fractionation of ***whey*** proteins- beta -lactoglobulin and alpha -lactalbumin, minor ***whey*** protein products, lactoperoxidase, lactotransferrin, Ig and ***glycomacropeptide***); co-precipitate production; production of milk protein concentrates; chemically, physically and enzymically modified milk proteins (physical modification of milk proteins and milk protein hydrolysates); and genetically engineered milk proteins.

AB . . . methods for production of caseins, caseinate production, fractionation of casein, production of whey protein-enriched products, dried whole whey, dried demineralized ***whey***, dried demineralized, delactosed ***whey***, ***whey*** protein concentrate and ***whey*** protein isolate-ultrafiltration-diafiltration and ***ion***

-exchange adsorption, lactalbumin production, and fractionation of
 whey proteins- beta -lactoglobulin and alpha -lactalbumin, minor
 whey protein products, lactoperoxidase, lactotransferrin, Ig and
 glycomacropeptide); co-precipitate production; production of milk
 protein concentrates; chemically, physically and enzymically modified milk
 proteins (physical modification of milk proteins and. . .

=> file fsta

=> d history

(FILE 'HOME' ENTERED AT 12:28:35 ON 23 MAY 2000)

FILE 'CABA' ENTERED AT 12:28:43 ON 23 MAY 2000

E GLYCOMACROPEPTIDE
 L1 116 S E3-E4
 L2 1 S GLYCOMACRO PEPTIDE#
 L3 2 S CASEINOGLYCOMACRO?
 L4 0 S CASEINGLYCOMACRO?
 L5 119 S L1-L3
 L6 18820 S WHEY
 L7 55513 S ANION## OR CATION## OR ION##
 L8 544 S L6(15A)L7
 L9 2 S L8(L)L5

FILE 'FSTA' ENTERED AT 12:31:28 ON 23 MAY 2000

=> s l9

12685 WHEY
 2937 ANION##
 3123 CATION##
 13404 ION##
 57 GLYCOMACROPEPTIDE/BI
 24 GLYCOMACROPEPTIDES/BI
 1 GLYCOMACRO
 5242 PEPTIDE#
 1 GLYCOMACRO PEPTIDE#
 (GLYCOMACRO(W)PEPTIDE#)
 0 CASEINOGLYCOMACRO?
 L10 2 L8(L)L5

=> s l8 and l5 not l9

12685 WHEY
 2937 ANION##
 3123 CATION##
 13404 ION##
 446 L6(15A)L7
 57 GLYCOMACROPEPTIDE/BI
 24 GLYCOMACROPEPTIDES/BI
 1 GLYCOMACRO
 5242 PEPTIDE#
 1 GLYCOMACRO PEPTIDE#
 (GLYCOMACRO(W)PEPTIDE#)
 0 CASEINOGLYCOMACRO?

12685 WHEY
 2937 ANION##
 3123 CATION##
 13404 ION##
 57 GLYCOMACROPEPTIDE/BI
 24 GLYCOMACROPEPTIDES/BI
 1 GLYCOMACRO
 5242 PEPTIDE#
 1 GLYCOMACRO PEPTIDE#
 (GLYCOMACRO(W)PEPTIDE#)
 0 CASEINOGLYCOMACRO?
 2 L8(L)L5

L11 0 L8 AND L5 NOT L9

=> s l9

11168 WHEY
 252053 ANION##
 322344 CATION##
 1106503 ION##
 122 GLYCOMACROPEPTIDE/BI
 94 GLYCOMACROPEPTIDES/BI
 3 GLYCOMACRO
 287534 PEPTIDE#
 2 GLYCOMACRO PEPTIDE#
 (GLYCOMACRO(W)PEPTIDE#)
 7 CASEINOGLYCOMACRO?

L12 9 L8(L)L5

=> s l12 not l9

```

11168 WHEY
252053 ANION##
322344 CATION##
1106503 ION##
  122 GLYCOMACROPEPTIDE/BI
  94 GLYCOMACROPEPTIDES/BI
  3 GLYCOMACRO
287534 PEPTIDE#
  2 GLYCOMACRO PEPTIDE#
    (GLYCOMACRO(W)PEPTIDE#)
  7 CASEINOGLYCOMACRO?
  9 L8(L)L5
L13      0 L12 NOT L9

```

=> s l8 and l5 not l9

```

11168 WHEY
252053 ANION##
322344 CATION##
1106503 ION##
  523 L6(15A)L7
  122 GLYCOMACROPEPTIDE/BI
  94 GLYCOMACROPEPTIDES/BI
  3 GLYCOMACRO
287534 PEPTIDE#
  2 GLYCOMACRO PEPTIDE#
    (GLYCOMACRO(W)PEPTIDE#)
  7 CASEINOGLYCOMACRO?
11168 WHEY
252053 ANION##
322344 CATION##
1106503 ION##
  122 GLYCOMACROPEPTIDE/BI
  94 GLYCOMACROPEPTIDES/BI
  3 GLYCOMACRO
287534 PEPTIDE#
  2 GLYCOMACRO PEPTIDE#
    (GLYCOMACRO(W)PEPTIDE#)
  7 CASEINOGLYCOMACRO?
  9 L8(L)L5
L14      5 L8 AND L5 NOT L9

```


=> d bib,kwic 1-5

L14 ANSWER 1 OF 5 CA COPYRIGHT 2000 ACS

AN 131:129138 CA

TI Comparison of analytical methods to quantify whey proteins

AU Norris, C. S.; Tsao, M.; Haggarty, N. W.; Otter, D. E.

CS New Zealand Dairy Research Institute, Palmerston North, N. Z.

SO Int. Dairy Fed. [Spec. Issue] S.I. (1998), 9804, 123-139

CODEN: IDFSEO; ISSN: 1025-8515

PB International Dairy Federation

DT Journal

LA English

RE.CNT 14

RE

(1) Grappin, R; Advanced Dairy Chemistry - Protein 1992, P7

(2) Hambræus, L; Developments in Dairy Chemistry - 1, Proteins 1982, P303

(3) Humphrey, R; J Dairy Sci Technol 1984, V19, P197 CA

(4) Jenness, R; Developments in Dairy Chemistry 1982, P108

(6) Kinghorn, N; J Chromatogr A 1995, V700, P111 CA

ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Anal. of the 4 main whey proteins (bovine serum albumin, IgG, .alpha.-lactalbumin, .beta.-lactoglobulin) and other minor proteins (milk fat globular membrane, proteose-peptone components, ***glycomacropeptide***) by various available methods (e.g. PAGE, HPLC, capillary electrophoresis) was compared and recommendations made as to the most useful methods for anal., depending on the speed desired and the material analyzed. Advantages and disadvantages of the methods are also discussed.

IT Capillary electrophoresis

Capillary zone electrophoresis

Food analysis

HPLC

High-performance gel-permeation chromatography

Ion exchange HPLC

Polyacrylamide gel electrophoresis

(comparison of anal. methods to quantify ***whey*** proteins)

IT Caseins, analysis

RL: ANT (Analyte); ANST (Analytical study)

(.kappa.-, ***glycomacropeptides*** ; comparison of anal. methods to quantify whey proteins)

L14 ANSWER 2 OF 5 CA COPYRIGHT 2000 ACS

AN 130:281142 CA
 TI Production of kappa-casein macropeptide
 IN Etzel, Mark R.
 PA Wisconsin Alumni Research Foundation, USA
 SO PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9918808	A1	19990422	WO 1998-US21283	19981008
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 5968586	A	19991019	US 1997-947700	19971009
AU 9910735	A1	19990503	AU 1999-10735	19981008
PRAI US 1997-947700		19971009		
US 1998-127573		19980731		
WO 1998-US21283		19981008		

RE.CNT 11

RE

- (1) Agricultural & Food Res; GB 2188526 A 1987
 (3) Fukumoto, L; FOOD RESEARCH INTERNATIONAL 1994, V27(4), P335 CA
 (6) Mirabel, B; ANN NUTR ALIM 1978, V32, P243 CA
 (8) Outinen, M; MILCHWISSENSCHAFT 1995, V50(10), P570 CA
 (11) Tanimoto, M; BIOSCIENCE, BIOTECHNOLOGY, AND BIOCHEMISTRY 1992,
 V56(1),
 P140 CA

ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The present invention relates to a process for producing .kappa.-casein
 macropeptides having nutraceutical properties from ***whey*** using
 ion exchange and/or immobilized metal affinity chromatog. A
 hydrolyzed .kappa.-casein macropeptide nutraceutical food product having
 less than about 4 % total of the hydrophobic arom. amino acids
 phenylalanine, tryptophan, and tyrosine is also disclosed.

ST casein macropeptide ***whey*** ***ion*** exchange affinity
 chromatog

IT .kappa.-Caseins

RL: FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(***glycomacropetides*** ; prodn. of kappa-casein macropetide by ion exchange and/or immobilized metal affinity chromatog.)

IT Affinity chromatography

Ion exchange chromatography

Whey

(prodn. of kappa-casein macropetide by ***ion*** exchange and/or immobilized metal affinity chromatog.)

IT ***Whey*** proteins

RL: FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prodn. of kappa-casein macropetide by ***ion*** exchange and/or immobilized metal affinity chromatog.)

L14 ANSWER 3 OF 5 CA COPYRIGHT 2000 ACS

AN 127:148574 CA

TI Method of separating and recovering proteins from a protein solution

IN Ayers, John Stephen; Elgar, David Francis; Pritchard, Mark

PA Ayers, John Stephen, N. Z.; Elgar, David Francis; Pritchard, Mark

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 9726797	A1	19970731	WO 1997-NZ5	19970127
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2242933	AA	19970731	CA 1997-2242933	19970127
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AU 9714580	A1	19970820	AU 1997-14580	19970127
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AU 708761	B2	19990812		
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EP 876106	A1	19981111	EP 1997-901281	19970127
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R: DE, DK, FR, GB, NL, IE

PRA INZ 1996-280892 19960126

WO 1997-NZ5 19970127

AB A preparative method of isolating a preselected whey protein or group of whey proteins from a soln. is provided. The method comprises the following steps: (a) contacting a ***whey*** protein soln. with a preselected ***ion*** exchanger for a time and at a temp. sufficient to enable the preselected ***whey*** protein to be adsorbed; wherein the whey protein soln. has (1) a protein content in the range of about 5 % to about 20 % by wt., (2) a pH of a preselected level, which is the level at which the preselected ***whey*** protein or group of ***whey*** proteins selectively binds to the preselected ***ion*** exchanger, and (3) a reduced ***ionic*** strength; and (b) recovering either or both of the following: (1) the ***whey*** protein component adsorbed in step (a), and (2) the breakthrough whey protein component not adsorbed in step (a). It is preferred that the ***whey*** protein soln. is a retentate obtained via ultrafiltration of ***whey***, having reduced ***ionic*** strength, or a ***whey*** protein conc. powder which has been reconstituted with water.

IT Caseins, biological studies

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)

(.kappa.-, ***glycomacropeptides*** ; method of sepg. and recovering proteins from a protein soln.)

L14 ANSWER 4 OF 5 CA COPYRIGHT 2000 ACS

AN 118:232502 CA

TI Heat-induced gelation of .beta.-lactoglobulin. Influence of pH, ***ionic*** strength and presence of other ***whey*** proteins

AU Gault, P.; Fauquant, J.

CS Lab. Rech. Technol. Lait., INRA, Rennes, 35042, Fr.

SO Lait (1992), 72(6), 491-510

CODEN: LAITAG; ISSN: 0023-7302

DT Journal

LA French

TI Heat-induced gelation of .beta.-lactoglobulin. Influence of pH, ***ionic*** strength and presence of other ***whey*** proteins

IT Caseins, properties

RL: PRP (Properties)

(.kappa.-, ***glycomacropeptides***, .beta.-lactoglobulin thermal gelation response to)

L14 ANSWER 5 OF 5 CA COPYRIGHT 2000 ACS

AN 115:206490 CA

TI A new isolation method of caseinoglycopeptide from sweet cheese whey

AU Saito, Tadao; Yamaji, Atsuo; Itoh, Takatoshi

CS Coll. Agric., Tohoku Univ., Sendai, 981, Japan

SO J. Dairy Sci. (1991), 74(9), 2831-7

CODEN: JDSCAE; ISSN: 0022-0302

DT Journal

LA English

AB Caseinoglycopeptides were isolated from sweet cheese ***whey*** by EtOH pptn. and ***ion*** -exchange chromatog. after heat coagulation of ***whey*** protein. The most successful method for the highest yield was by heating 10% (wt./vol.) whey soln. at pH 6.0 for 1 h, followed by pptn. with cold 50% EtOH. The caseinoglycopeptide was fractionated into sialo- and asialo-caseinoglycopeptides by peanut lectin-affinity chromatog. Caseinoglycopeptides exhibited 5 peaks on reverse-phase HPLC, which were divided into the first peak of an asialo-caseinoglycopeptide and then sialo-caseinoglycopeptides in the following 4 peaks. The asialo-caseinoglycopeptide was .apprx.10% of the total caseinoglycopeptide. Asialocaseinoglycopeptide also could be prepd. from cheese whey acidified to pH 3.0 and heated for 1 h at 98.degree.. Sialic acid in caseinoglycopeptide was completely released by this treatment. The yield of caseinoglycopeptide was .apprx.1.1 g from 100 g cheese whey powder.

ST whey casein ***glycomacropeptide*** sepn; asialoglycomacropeptide whey; affinity chromatog ***glycomacropeptide*** ; ion exchange ***glycomacropeptide***

IT Whey

(***glycomacropeptide*** and asialoglycomacropeptide prepn. from)

IT Caseins, preparation

RL: PREP (Preparation)

(.kappa.-, ***glycomacropeptides*** , sepn. of, from whey by ethanol pptn. and chromatog.)

09/450 217

TI Glycomacropeptide from cheese whey protein concentrate enhances IgA production by lipopolysaccharide-stimulated murine spleen cells

AU Yun, S. S.; Sugita-Konishi, Y.; Kumagai, S.; Yamauchi, K.

SO Animal Science and Technology, (1996) Vol. 67, No. 5, pp. 458-462. 15 ref.
ISSN: 0021-5309

TI Functional milk protein products

AU Mulvihill, D. M.; Andrews, A. T. [EDITOR]; Varley, J. [EDITOR]

CS Food Chemistry Department, University College, Cork, Irish Republic.

SO Biochemistry of milk products, (1994) pp. 94-113. Special Publication No. 150. 82 ref.

Publisher: Royal Society of Chemistry. Cambridge

Price: pounds sterling 39.50.

ISBN: 0-85186-702-2

TI A new isolation method of caseinoglycopeptide from sweet cheese whey

AU Saito, Tadao; Yamaji, Atsuo; Itoh, Takatoshi

CS Coll. Agric., Tohoku Univ., Sendai, 981, Japan

SO J. Dairy Sci. (1991), 74(9), 2831-7

CODEN: JDSCAE; ISSN: 0022-0302

Ag 5/23/00